

REMARKS

Claims 1 to 10 were pending in the application at the time of examination. Claims 7, 8, and 9 have been allowed. Claims 1, 2, 3, 4, 5, 6 and 10 stand rejected as anticipated.

Applicants appreciate the Examiner's allowance of Claims 7, 8, and 9.

The Office Action stated that Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,584,559 B1 to Huh et al., (hereinafter, Huh). Because both the Disposition of Claims Section and the Allowable Subject Matter Section of the Office Action indicated allowance of Claims 7, 8, and 9, Applicants presume Claims 1, 2, 3, 4, 5, 6, and 10 stand rejected under 35 U.S.C. 102(e) as being anticipated by Huh.

Applicants respectfully traverse the anticipation rejection of Claim 1.

The MPEP directs:

**TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH
EVERY ELEMENT OF THE CLAIM**

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. ... The identical invention must be shown in as complete detail as is contained in the ... claim.

MPEP, § 2131, 8th Ed., Rev. 3, p. 2100-76 (August 2005).

Claim 1 recited in part:

receiving, by a processor, a message from an embedded device, said embedded device comprising a first code space comprising at least one segment and a second code space comprising one or more segments wherein said processor is included in a device different from said embedded device;

decoding, by said processor, said message to determine an execution mode of said embedded device;

indicating, by said processor, code in said first code space is corrupted if said execution mode indicates said embedded device is executing in said second code space; and

indicating, by said processor, said code in said first code space is valid if said execution mode indicates said embedded device is executing in said first code space.

Applicants respectfully note that Claim 1 provides detail about the embedded device in that the embedded device includes first and second code spaces that each include at least one segment and the embedded device sends a message. The rejection failed to cite with any specificity any teaching of these elements in Huh and instead stated:

...Huh et al. discloses receiving, by a processor, a message from an embedded device, said embedded device comprising a first code space comprising at least one segment and a second code space comprising one or more segments wherein said processor is included in a device different from said embedded device in column 4, lines 24-31;

The rejection also stated "the first code space is the new firmware and the second code space is the old firmware." Thus, the rejection quoted the first element of Claim 1 and then cited generally to Huh that actually taught:

Referring to FIG. 3, the boot sequence of FIG. 3 is initiated 200 (i.e., the system is rebooted). During the reboot, the processor 14 reads 204 the permanent boot code 42. As will be appreciated, the boot code 42 directs the processor 14 to read any new firmware as part of the boot sequence, which requires the processor 14 to determine 208 whether any new firmware 54 is present to upgrade or replace the old firmware 46.

Huh described the processor, the old firmware, and the new firmware in the following manner:

...a computational component 10 according to the present invention is depicted. **The computational component includes a central processing unit 14, a timer 18, volatile and nonvolatile memory 22 and 26, respectively, a validator 30, validation flag 34 and a counter 38.**

The nonvolatile memory 26 includes a boot code 42 and old firmware 46 stored in permanent (nonwritable) ROM 50 and new firmware 54 stored in nonpermanent ROM 56 (emphasis added).

Huh, Col. 3, lines 28 to 36. Thus, Huh explicitly taught that the computational component includes the central processing unit (processor) and nonvolatile memory. Huh explicitly taught that nonvolatile memory includes the old firmware and new firmware. Therefore, the computational component of Huh includes the processor, the old firmware, and the new firmware.

This section of Huh and the rejection fail to teach that the code spaces are made up of segments as recited in Claim 1. Also, Huh unambiguously taught that the two code spaces, as identified in the rejection, and the processor are part of the same device "computational component 10." However, as noted above, the code spaces of Claim 1 are part of the embedded device while the "processor is included in a device different from said embedded device." Thus, Huh fails to teach the invention in the same level of detail as recited in Claim 1 and in fact teaches away from the invention by having the codes spaces, as identified in the rejection, and the processor included in the same device. This alone is sufficient for withdrawal of the anticipation rejection of Claim 1.

The office action has failed to cite with any specificity what is considered to be the embedded device in Huh and what is considered to be the message in Huh. Accordingly, the rejection has failed to establish a prima facie anticipation

rejection because the rejection has not established that Huh teaches the invention as required in the above quotation from the MPEP.

Further, consideration of the rejection shows that inconsistent interpretations of the reference have been used. The Office Action also stated:

...decoding, by said processor, said message to determine an execution mode of said embedded device; indicating, by said processor, code in said first code space is corrupted if said execution mode indicates said embedded device is executing in said second code space; and indicating, by said processor, said code in said first code space is valid if said execution mode indicates said embedded device is executing in said first code space in column 4, lines 32-67.

Again, the rejection provides no specificity or distinction between decoding and the two indicating operations and instead again just cited generally to a portion of Huh. The cited section of Huh at Col. 4, lines 32 to 34 actually taught:

If no new firmware is present, the processor 14 reads and executes the old firmware 46 and completes the booting process using the old firmware.

There is no teaching of decoding a message from an embedded device in this portion of Huh and instead Huh teaches that if new firmware is not present old firmware is used. Since the old firmware was identified as "the second code space," in the rejection, Huh teaches that it is the processor that executes the old firmware. In contrast Claim 1, as quoted above recites:

indicating, by said processor, code in said first code space is corrupted if said execution mode indicates said embedded device is executing in said second code space

Thus, the processor of Claim 1 indicates "code in said first code space is corrupted," when the embedded device is executing in the second code space. Thus, according to Claim 1, it is the embedded device that is executing code in the second code space and not the processor, as taught by Huh.

Huh does not teach that the new firmware is corrupted, but rather "no new firmware is present." Corrupted is different from missing that was taught by Huh. Identifying "old firmware" as a code space does not make sense because it is code and not a code space. Also, as noted, it is the processor of Huh that is executing this code and not an embedded device as in Claim 1. Huh teaching that the processor is executing code in the second code space fails to provide any teaching that the processor gives any indication of the status of a code space in an embedded device as recited in Claim 1. Also, the Examiner has not established that both the processor of Huh and whatever is considered the embedded device could be executing code in the second code space simultaneously, which would be required to read on Claim 1, since Huh is unambiguous that the processor is executing in that code space according to the rejection. Accordingly, Huh fails to teach anything concerning this limitation. Any one of these distinctions is sufficient to overcome the anticipation rejection.

Next, Huh stated in Col. 4, lines 35 to 43:

If new firmware is present, the processor 14 determines 212 whether or not the new firmware 54 has been previously validated, such as in the downloading operation described above or in a previous booting operation.

If the firmware has not been validated previously, the processor 14 increments 216 the counter 38. The validation flag 34 indicates whether the validator is pending, successful (valid), or unsuccessful (invalid). The counter 38 determines the number of attempts to validate the new firmware 54.

Again, it is unclear to which portions of Claim 1 these sections of Huh are directed. With all due respect, Applicants respectfully submit that Applicants should not be forced to guess what the rejection intended and instead the rejection should identify with specificity the basis for the rejection by correlating elements of the reference to elements in Applicants' claim.

Assuming that the rejection is considering the validation flag as the message and the processor of Huh determining the state of the validation flag as the decoding of Claim 1, this is but further evidence that the rejection is not well founded. Huh is not clear as to how the validation flag is configured. Huh taught "a validator 30, validation flag 34 and a counter 38" at Col. 3, lines 31 and 32. Huh also taught at Col. 4, lines 20 to 22:

If the new firmware is downloaded successfully (all checksums were valid), the validation flag 34 is set 128 to a next state "PENDING" and the counter 38 to zero.

Huh in Fig. 2 shows that validator 30 is connected to validation flag 34 and counter 38. Thus, apparently, it is validator 30 that sets flag 34 and zeroes counter 38. (See also, the above quote "The validation flag 34 indicates whether the **validator** is pending, successful (valid), or unsuccessful (invalid).")

With this interpretation and the interpretation of the validation flag as the message, validator 30 would be the embedded device of Claim 1, but validator 30 does not include the first and second code spaces as identified in the rejection and so this interpretation makes no sense. Thus, the validation flag is not the message because when it is so interpreted, Huh teaches away from Applicants' invention by teaching a totally different embedded device. Applicants could go on, but the point is clear, Huh fails to teach the invention

to the same level of detail as recited in Claim 1. Applicants respectfully request reconsideration and withdrawal of the anticipation rejection of Claim 1.

Applicants respectfully traverse the anticipation rejection of Claims 2 and 3.

Claims 2 and 3 depend from Claim 1 and so distinguish over Huh for at least the same reasons as Claim 1. Applicants respectfully request reconsideration and withdrawal of the anticipation rejection of each of Claims 2 and 3.

Applicants respectfully traverse the anticipation rejection of Claim 4.

Claim 4 stands rejected for the same reasons as Claim 1. Claim 4 is the means for performing the method of Claim 1 and so distinguishes over Huh for the same reasons as Claim 1, and the remarks concerning Claim 1 are incorporated herein by reference. Applicants respectfully request reconsideration and withdrawal of the anticipation rejection of Claim 4.

Applicants respectfully traverse the anticipation rejection of Claims 5 and 6. Claims 5 and 6 depend from Claim 4 and so distinguish over Huh for at least the same reasons as Claim 4. Applicants respectfully request reconsideration and withdrawal of the anticipation rejection of each of Claims 5 and 6.

Applicants respectfully traverse the anticipation rejection of Claim 10.

The Office Action cited the same sections of Huh in rejecting Claim 10 as cited with respect to Claim 1. As discussed with respect to Claim 1, and incorporated herein by reference, the Office Action failed to show that the cited sections of Huh taught or suggested each element of Claim 10. For example, the Office Action failed to show that the cited sections of Huh taught or suggested a remote device comprising a first code space comprising at least one segment and a second code space comprising one or more segments wherein said

processor is included in a device different from said remote device. For each of these reasons, Huh fails to anticipate Claim 10. Applicants respectfully request reconsideration and withdrawal of the anticipation rejection of Claim 10.

Claims 1 to 10 remain in the application. For the foregoing reasons, Applicant(s) respectfully request allowance of all pending claims. If the Examiner has any questions relating to the above, the Examiner is respectfully requested to telephone the undersigned Attorney for Applicant(s).

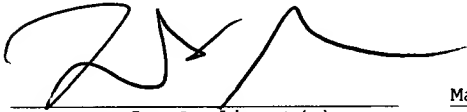
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of Signature

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Date